Title (en)

Spatial diffusion in images

Title (de)

Räumliche Diffusion bei Bildern

Title (fr)

Diffusion spatiale dans des images

Publication

EP 2034437 A1 20090311 (EN)

Application

EP 07301345 A 20070906

Priority

EP 07301345 A 20070906

Abstract (en)

The invention is related to spatial diffusion in images. Spatial diffusion helps blurring small discontinuities. Edges become sharper by spatial diffusion as well. A method for generating a spatial diffused image from an input image is described wherein the method comprises applying on the input image an inverted Gaussian spatial bilateral filter with a spatial weight which takes the form of an inverted Gaussian. The inverted-Gaussian-spatial bilateral filter, which uses an inverted-Gaussian function as the kernel of spatial filter, can remove small spots in large smooth areas efficiently.

IPC 8 full level

G06T 5/20 (2006.01)

CPC (source: EP US)

G06T 5/20 (2013.01 - EP US); **G06T 5/70** (2024.01 - EP US); **G06T 5/73** (2024.01 - EP US); G06T 2207/20028 (2013.01 - EP US); G06T 2207/20192 (2013.01 - EP US)

Citation (search report)

- [A] TOMASI C ET AL: "Bilateral filtering for gray and color images", SIXTH INTERNATIONAL CONFERENCE ON COMPUTER VISION (IEEE CAT. NO.98CH36271) NAROSA PUBLISHING HOUSE NEW DELHI, INDIA, 1998, pages 839 - 846, XP002471367, ISBN: 81-7319-221-9
- [A] DURAND F ET AL: "Fast Bilateral Filtering for the Display of High-Dynamic-Range Images", ACM TRANSACTIONS ON GRAPHICS, ACM, NEW YORK, NY, US, vol. 21, no. 3, July 2002 (2002-07-01), pages 257 - 266, XP002312495, ISSN: 0730-0301
- [A] SYLVAIN PARIS ET AL: "A Fast Approximation of the Bilateral Filter Using a Signal Processing Approach", COMPUTER VISION - ECCV 2006 LECTURE NOTES IN COMPUTER SCIENCE;;LNCS, SPRINGER-VERLAG, BE, vol. 3954, 2006, pages 568 - 580, XP019036567, ISBN: 3-540-33838-1

Cited by

US11623249B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 2034438 A2 20090311; **EP 2034438 A3 20090401**; CN 101383044 A 20090311; CN 101383044 B 20130102; EP 2034437 A1 20090311; JP 2009065665 A 20090326; US 2009067740 A1 20090312; US 8457434 B2 20130604

DOCDB simple family (application)

EP 08162794 A 20080822; CN 200810213467 A 20080904; EP 07301345 A 20070906; JP 2008226605 A 20080904; US 22924908 A 20080821